

# **Rakuten Mobile and Rakuten Communications Platform Overview**

**Azita Arvani, GM Rakuten Mobile Americas**

January 2021



# Rakuten at a glance

Rakuten is an internet and technology-powered group: diversified with 70+ businesses and 20,000+ employees across the globe

**\$175B**

Global gross transaction volume in 2019

**\$11.6B**

Total annual revenue (2019)

**1.4+B**

Members globally

**20k+**

Employees across the globe

**71+**

Services and businesses

**35**

Countries/areas around the world



# Technology Canvas for Future Transformation

## ENABLE Industry

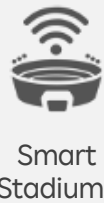
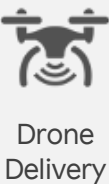
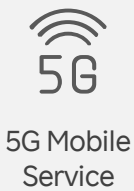
Rakuten Mobile      Rakuten Advertising  
Rakuten Bank      Rakuten Intelligence  
Rakuten Card      Rakuten Delivery  
Rakuten Securities      Rakuten Medical  
Rakuten Communications Platform

## EMPOWER Society

Rakuten      Rakuten 光  
Rakuten Drone      Rakuten Energy  
Rakuten Ready      Rakuten Wallet  
Rakuten EXPRESS      Rakuten Ragri  
Rakuten SUPER LOGISTICS      R Pay      R Edy

## ENRICH Individual Experiences

Rakuten Travel      Rakuten LIVE  
Rakuten Viber      Rakuten SPORTS  
Rakuten kobo         
Rakuten TV        
Rakuten VIKI



# Rakuten Mobile and Rakuten Communications Platform

The Rakuten Ecosystem is uniquely positioned to build an entirely new digital platform with Rakuten Mobile

**Rakuten**  
**Mobile**

**RCP**

**mobile operator**

world's first fully virtualized,  
cloud native

Best mobile experience  
for **consumers**



Japan

**telco platform**

world's first fully virtualized,  
cloud-native, end-to-end

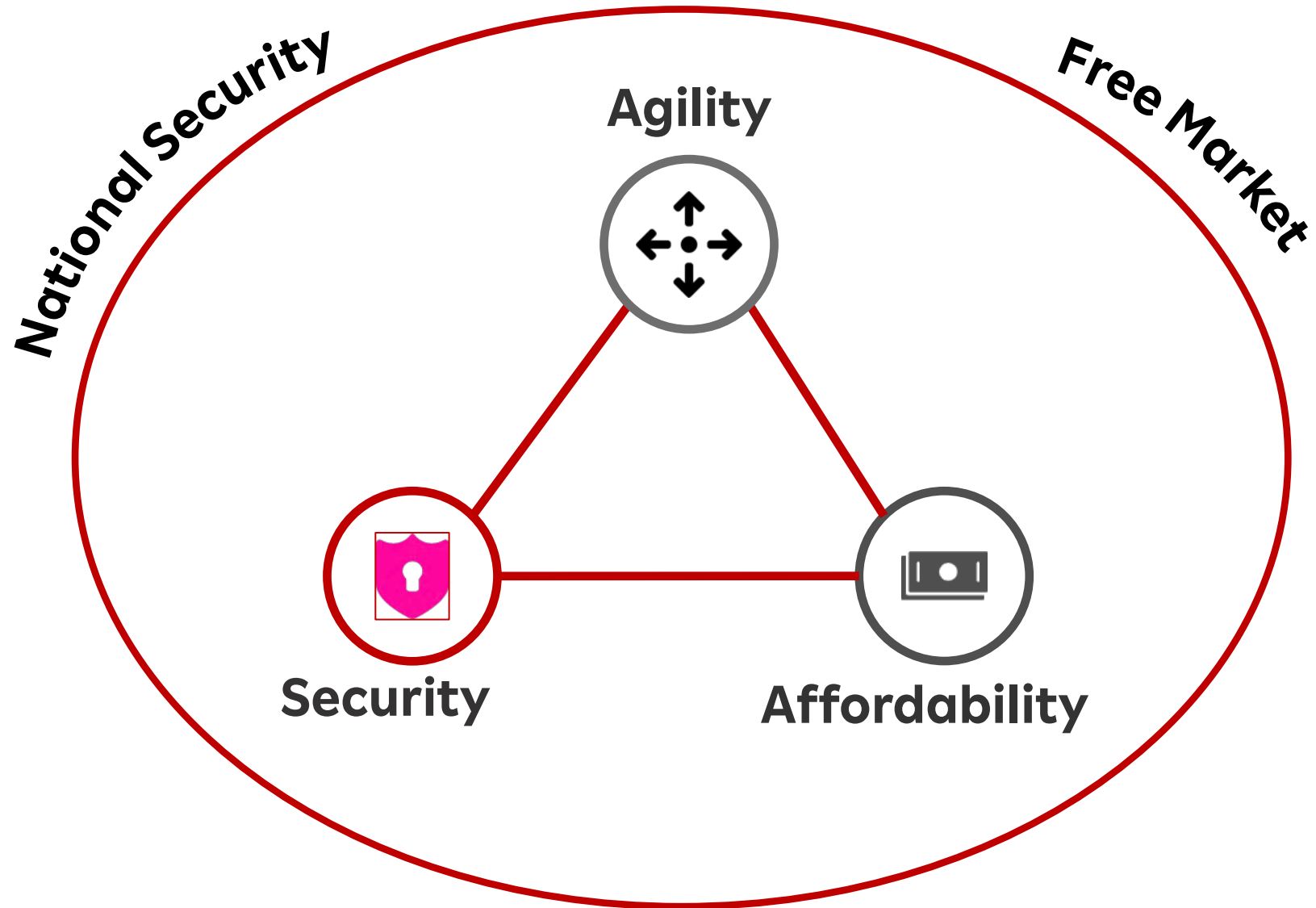
Enables **telcos and enterprises**  
easily build secure and open  
networks

Global



*Rakuten Mobile is the first customer of RCP*

# Infrastructure Principles Must Co-Exist

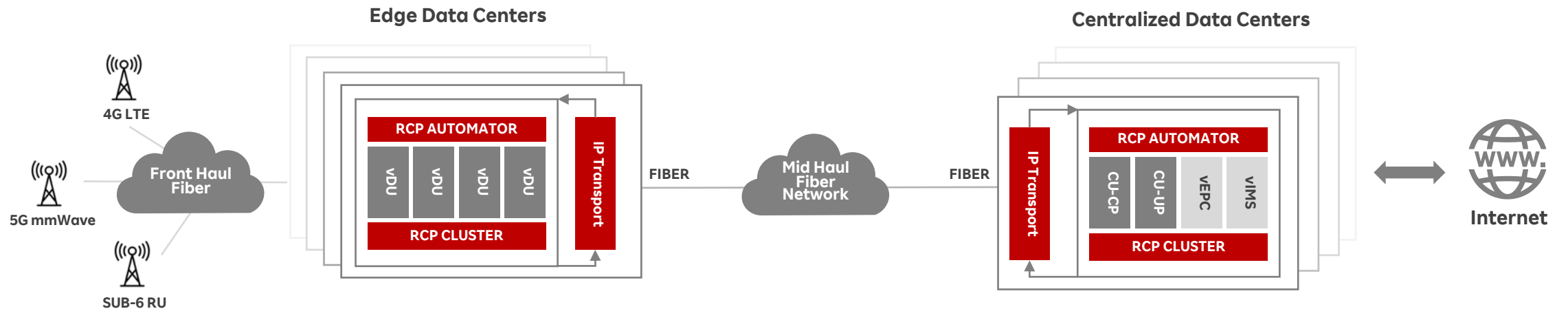
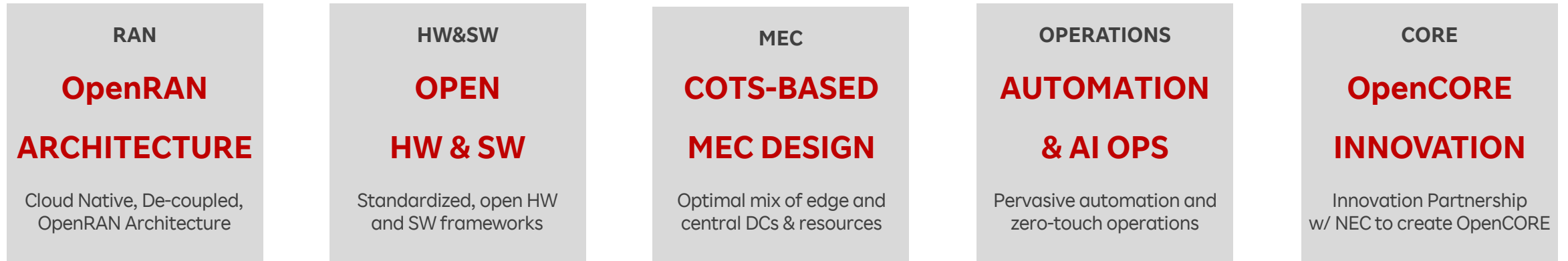


# **World's First Fully Virtualized New Generation Network**

**April 8, 2020  
Full-Scale Launch**



# Rakuten Architecture is designed around Open Networks



# New customer behavior

Rakuten Mobile goes beyond by delivering exceptional experience for data hungry customers

Customers

**> 1m**

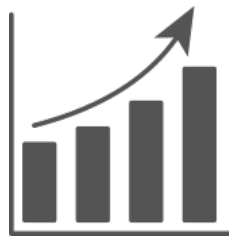
Onboarded within 4 months



Data volume/sub

**0.5 GB/ Day**

2X More Compared to  
Other Operators



Video performance

**2m videos**

50% Of Traffic is Video and  
Streaming



RCS calls ratio

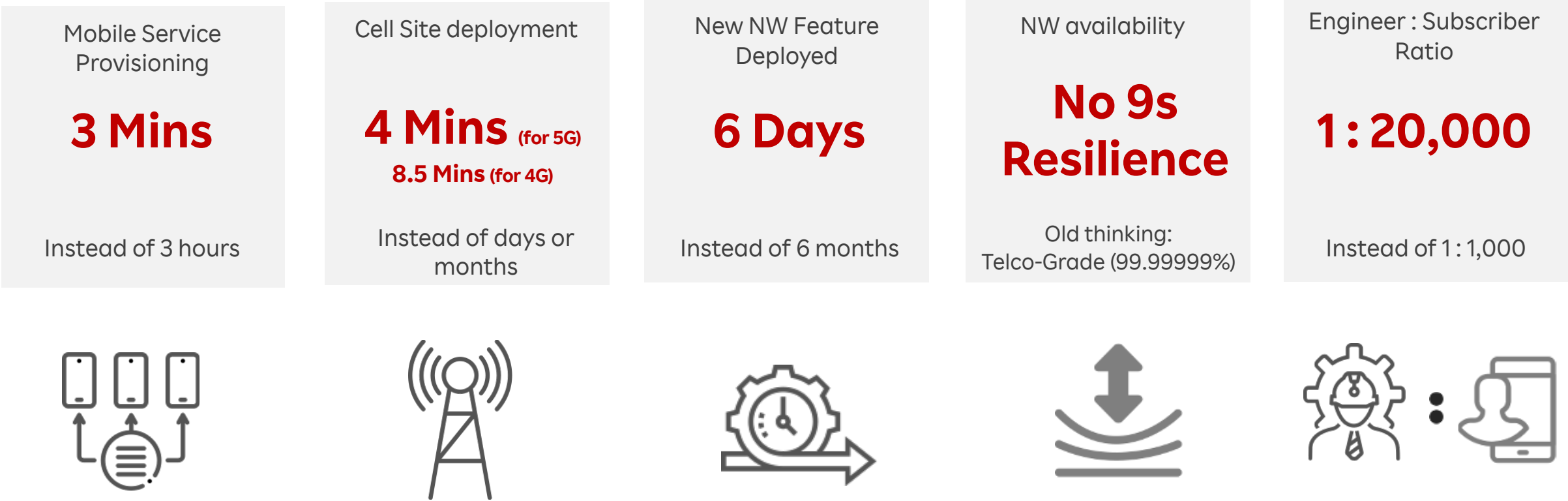
**70%**

2.5X More RCS Calls  
than VoLTE



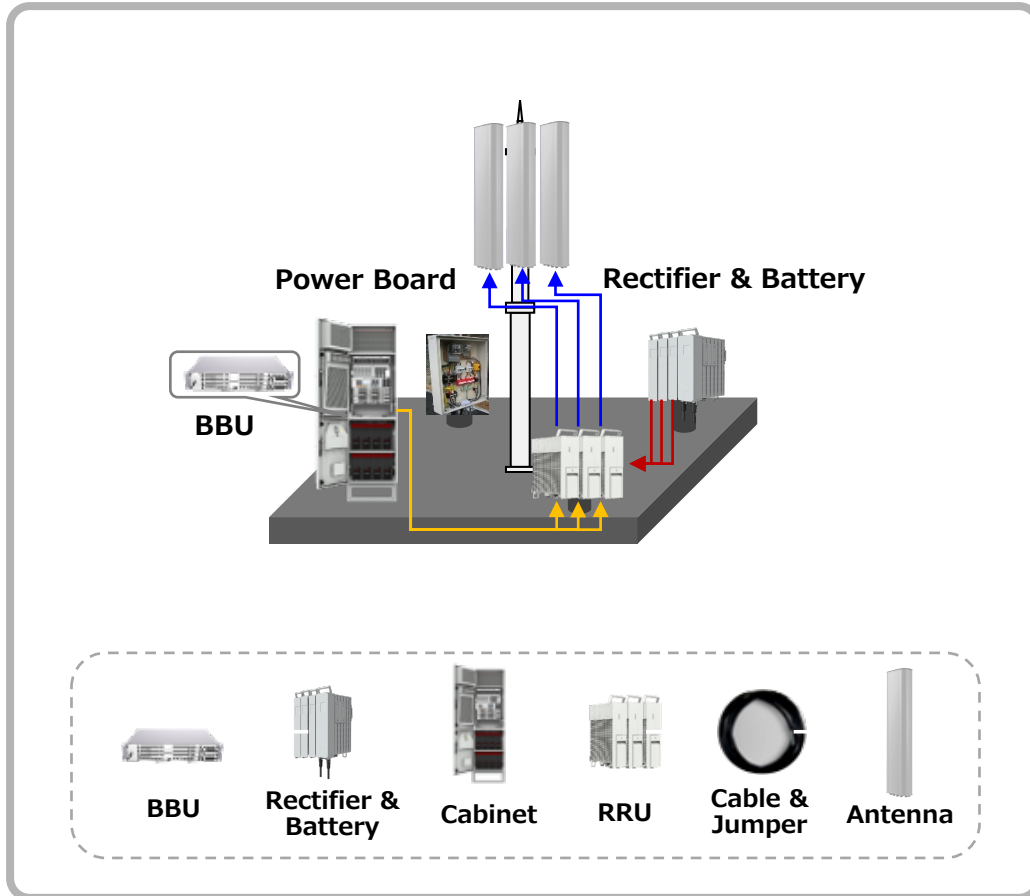
# New way to operate

Rakuten Mobile operates like no other existing telco in the world

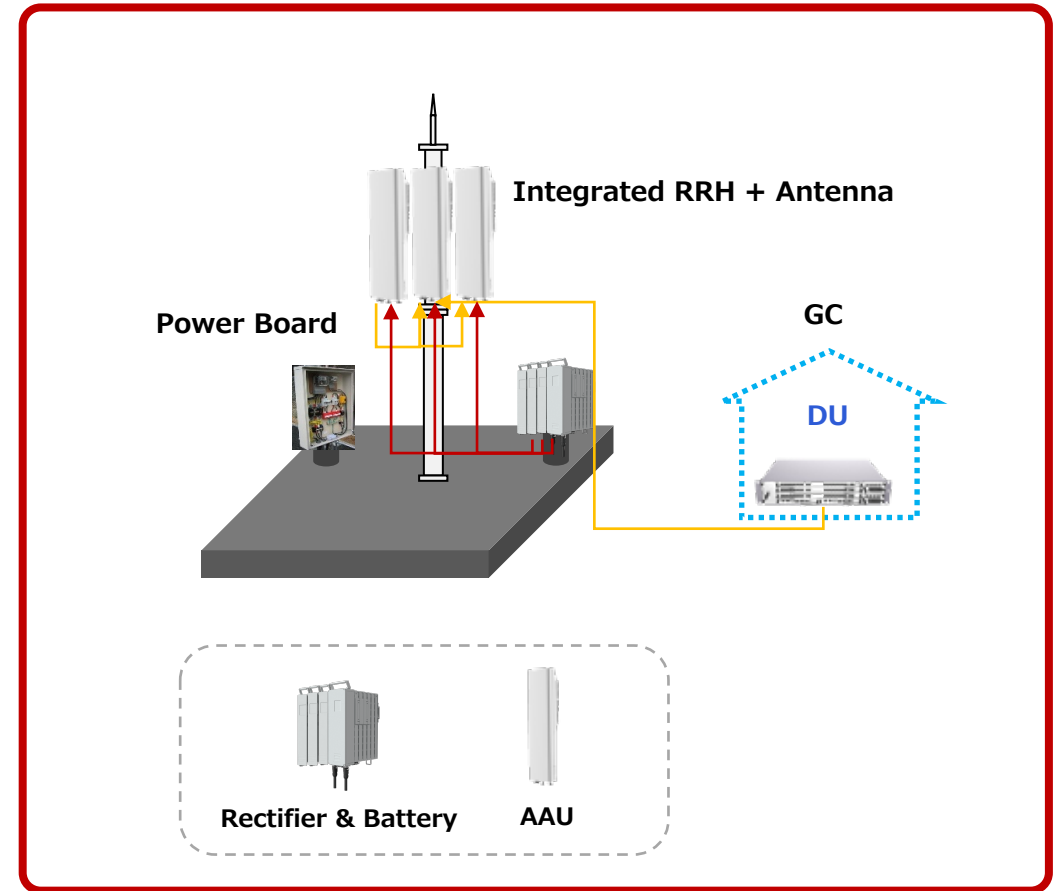


# Simplified Site Deployment Reducing Cost and Build Out Time

## Traditional Site Deployment



## Rakuten Simplified Site Deployment



# Unique Modular Concrete Poles that are Simple and Cost Effective



## Cost Effective

**40%**

40% less cost compared to  
building top macro

## Concrete Pole

**Ease of  
Installation**

Deploy maximum no. of  
poles nationwide

## Complete Control

**Ease of  
Access**

To site maintenance

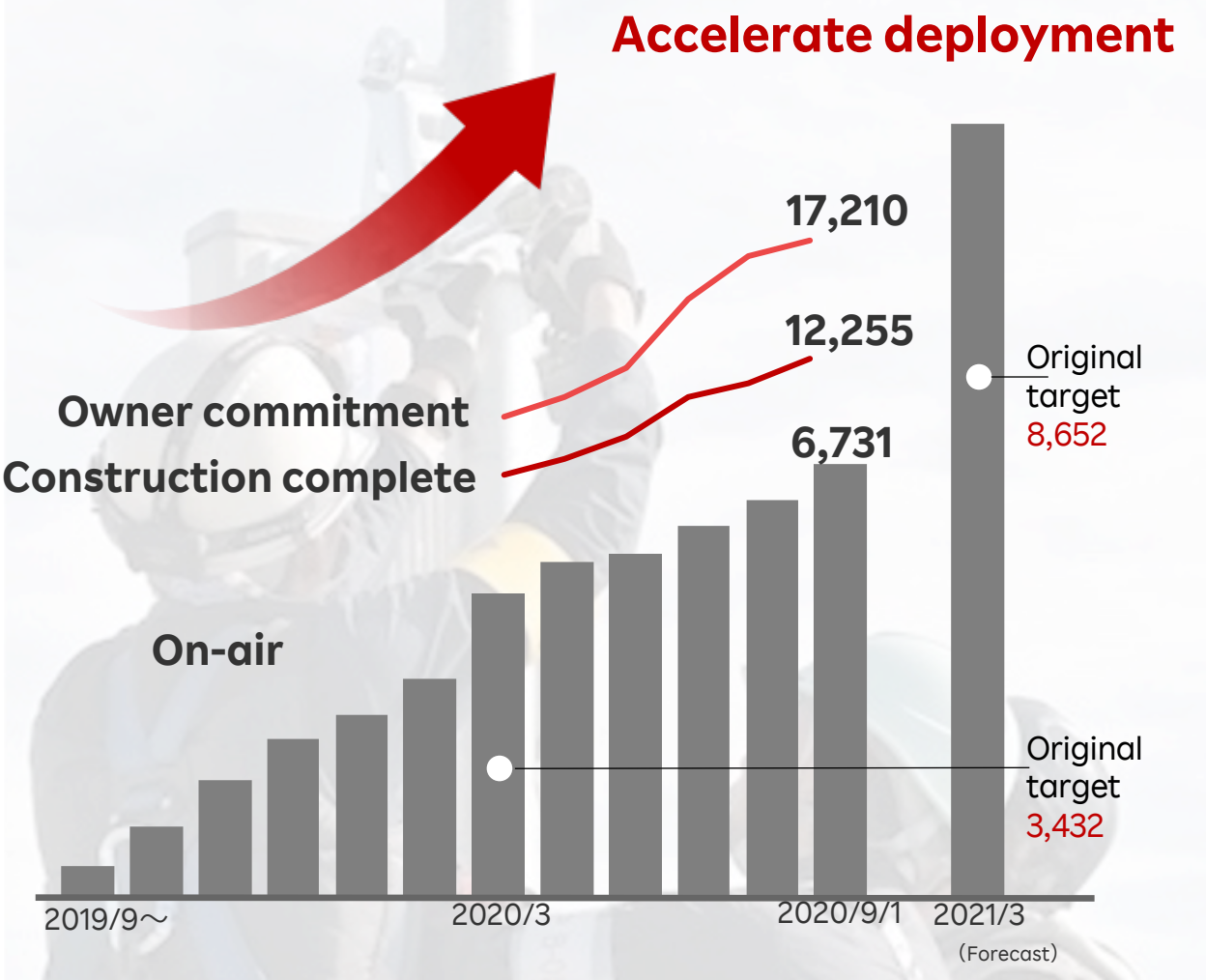
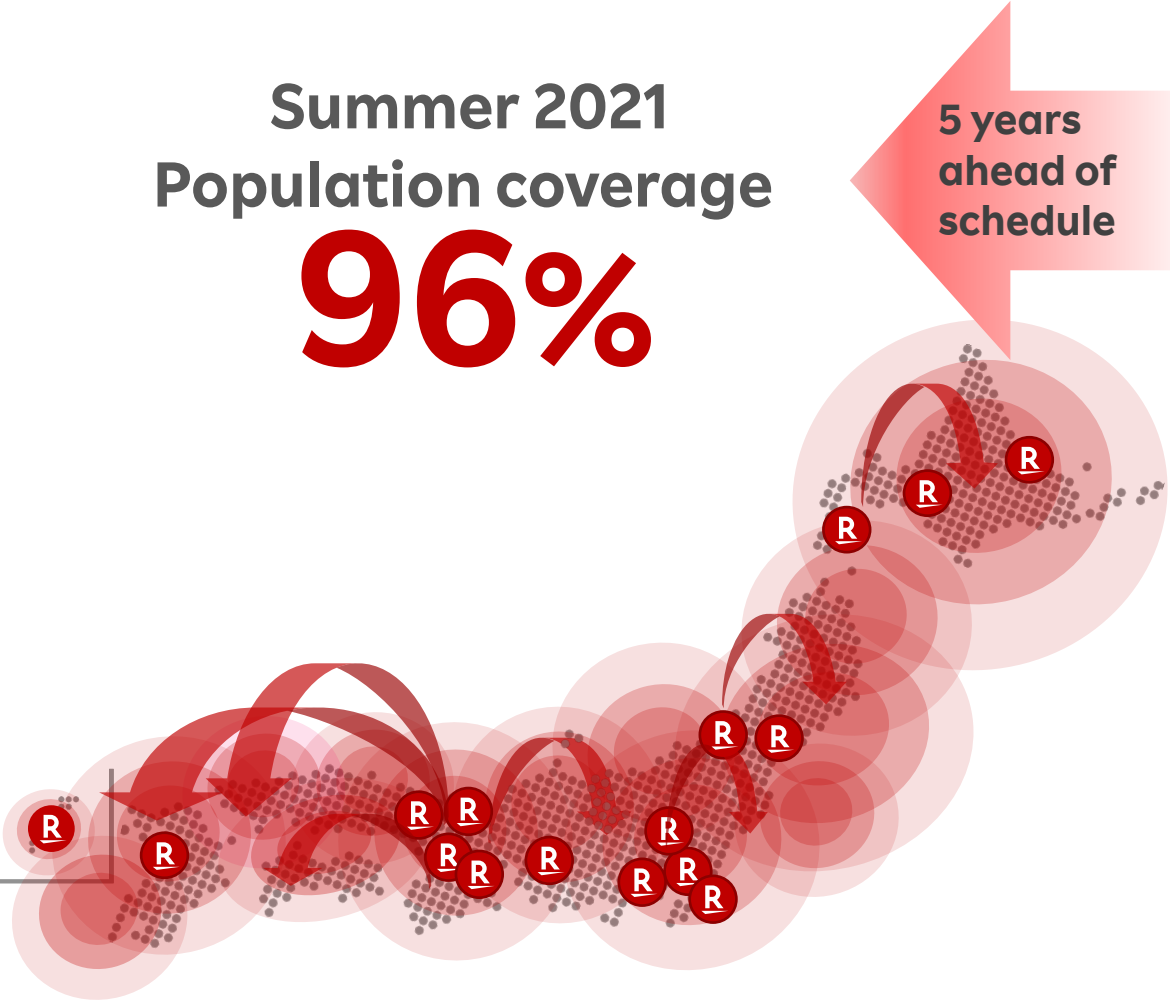
## Modular

**5G Ready**

Minimum required space

# Rakuten Mobile deployment

A highly stable, demand elastic and future-proof telco platform in only two years



# 5G launch in Japan

Launched 5G on September 30<sup>th</sup> 2020

Un-limit plan V (5G plan)

**Same  
cost**

As Un-limit plan (4G plan)

Radio unit

**5G NR  
(sub-6 RU)**

3.8Ghz, 32 32 TRx,  
70 dBM EIRP

Radio unit

**5G NR  
(mmWave  
DRU)**

28 GHz, 128 x 128 Element,  
51 dBm EIRP Antenna

Coverage

**6  
prefectures**

Tokyo, Kanagawa,  
Saitama, Hokkaido, Osaka  
and Hyogo.

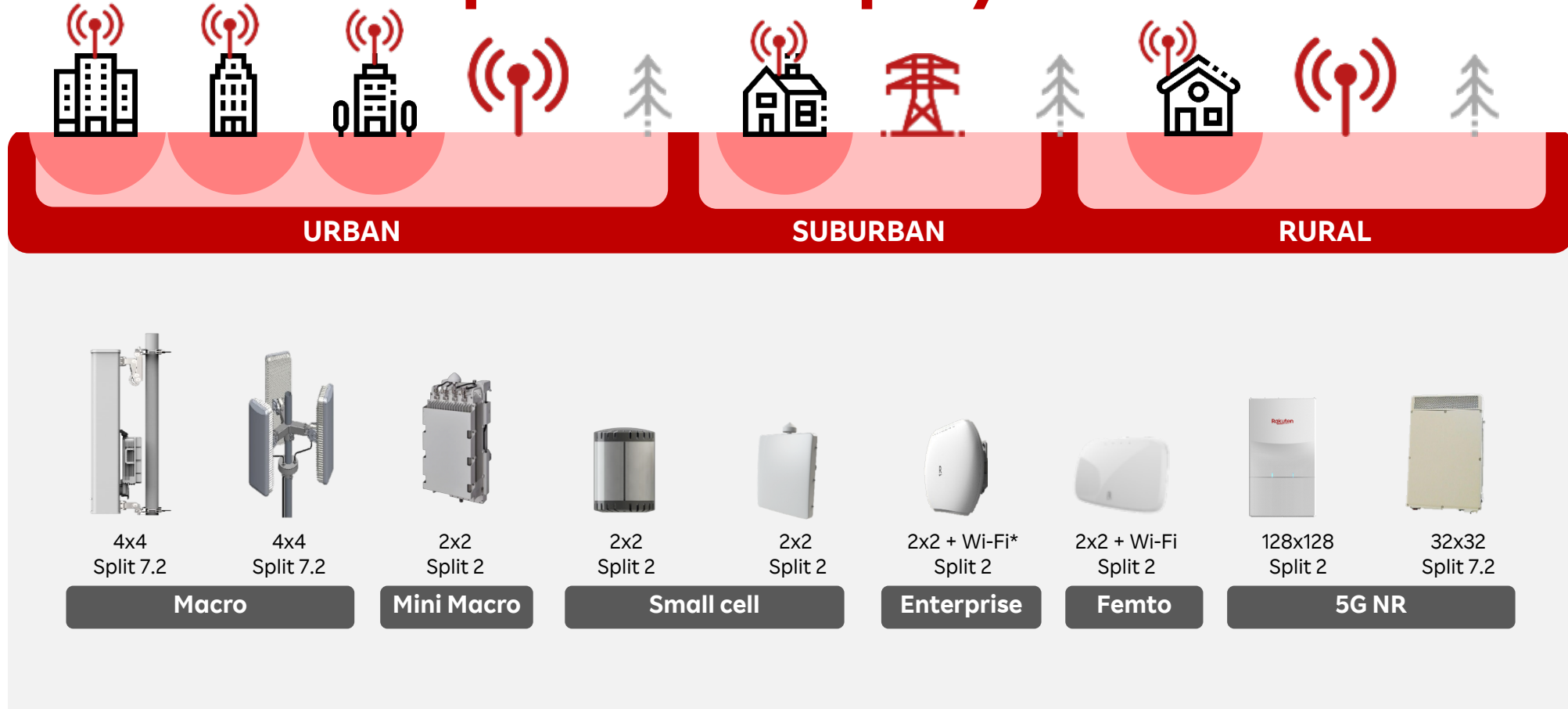
Mobile Devices

**2 new  
phones**

Rakuten Big, Rakuten Hand



# One of the World's Largest HetNet OpenRAN Deployment



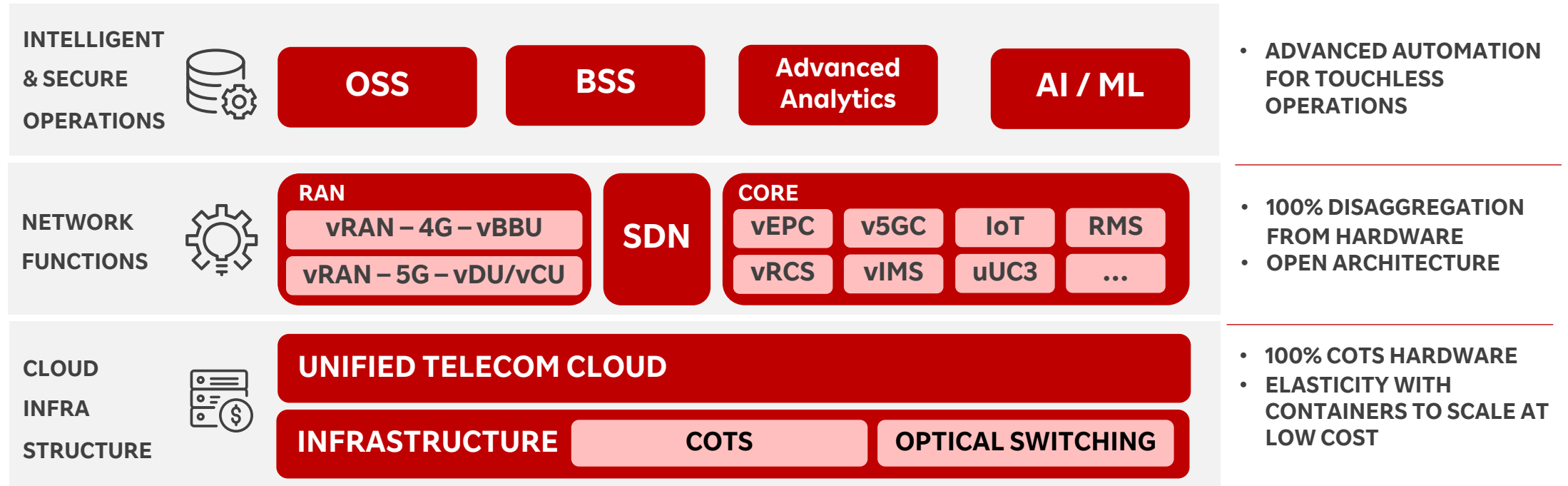
Integrated HetNet Approach allows us to manage existing spectrum better

# Rakuten Communications Platform



# We take OpenRAN Global with RCP

Rakuten Communications Platform is behind our 5G Initiatives and we will provide it to operators globally next year



At each capability layer of our Architecture, we design to deliver significant value and outcomes to our business

# RCP is built on key secure operations principles

Enabling us to embed security at every layer of the communications stack



## Trusted Transparency

Working with a **trusted supply chain** and continuously **verifying the trust level** of the system – all physical, virtual, hardware and software components



## Zero Trust

Conducting **Trust Assessment**, applying **Trust Level Policy** for each network zone, and **enforcing the Policy** through automated updates



## NIST Framework

Adopting **the Cybersecurity Framework** to enhance our capability to identify, prevent, detect, respond to cyber attacks and recover



## Clean Network

Providing secure **end-to-end cloud-native network** infrastructure with trusted partners and **establishing** processes to safeguard customer privacy and sensitive information

We are recognized by the US Department of State as a **5G Clean** Telecommunications company



**Rakuten**